



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------|-------------|----------------------|---------------------|------------------|
| 10/591,002 | 08/29/2006 | Atsuyuki Miyaji | Q85897 | 2454 |
| 23373 | 7590 | 05/15/2009 | EXAMINER | |
| SUGHRUE MION, PLLC | | | DARJI, PRITESH D | |
| 2100 PENNSYLVANIA AVENUE, N.W. | | | | |
| SUITE 800 | | | ART UNIT | PAPER NUMBER |
| WASHINGTON, DC 20037 | | | 1793 | |
| | | | | |
| | | | MAIL DATE | DELIVERY MODE |
| | | | 05/15/2009 | PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/591,002 | MIYAJI ET AL. | |
| | Examiner | Art Unit | |
| | PRITESH DARJI | 1793 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 09 February 2009.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 13-16 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12 and 17 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ . |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ . | 6) <input type="checkbox"/> Other: _____ . |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-9 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the carrier" in line 4. There is insufficient antecedent basis for this limitation in the claim.

In claim 1, "at least one element selected from group... periodic table" and "at least one element selected from among ... and polonium" is improper Markush language and thus indefinite. See MPEP 2173.05(h) I.

In claim 2, line 3, "heteropolyacids and/or their salts" is indefinite with regards to and/or.

In claim 2, "at least one compound selected from... salts" is improper Markush language and thus indefinite. See MPEP 2173.05(h) I.

In claim 3, "at least one compound selected from... and chromium" is improper Markush language and thus indefinite. See MPEP 2173.05(h) I.

In claim 4, "at least one element selected from... and platinum" is improper Markush language and thus indefinite. See MPEP 2173.05(h) I.

In claim 5, at least one element selected from... and tellurium" is improper Markush language and thus indefinite. See MPEP 2173.05(h) I.

In claims 6-8, line 2, "heteropolyacid and/or their salt" is indefinite with regards to and/or.

In claim 7, "at least one element selected from... and boron" is improper Markush language and thus indefinite. See MPEP 2173.05(h) I.

In claim 8, "at least one compound selected from... their salts" is improper Markush language and thus indefinite. See MPEP 2173.05(h) I.

In claim 9, "an element selected from... and zinc" is improper Markush language and thus indefinite. See MPEP 2173.05(h) I.

In claim 17, "at least one compound selected from... and chromium" is improper Markush language and thus indefinite. See MPEP 2173.05(h) I.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 and 17 are rejected under 35 U.S.C. 103(a) as obvious over Sano (US 2003/0092936).

Sano teaches catalyst for production of acetic acid. Sano teaches contact between carrier and solution having water and palladium compound. See [0063]. Carrier is further contacted with a group 14, 15 or 16 element (e.g. tellurium chloride) dissolved in an alkaline substance water. See [0072-0073] and [0121]. Resulted palladium

compound loaded catalyst is reduced to obtain a supported catalyst. See [0123]. Inclusion of at least one element from group 6 and groups 11-12 is stated. Chromium chloride and zinc chlorides can be used. See [0097-0098] and [0125]. Sano further teaches use of heteropolyacid (e.g. tungstophosphoric acid) during the catalyst production. The hetero atom is phosphorous or silicon and the polyatom is at least one from tungsten and molybdenum. See [0191-0193] and page 27, column 1, lines 8-20.

The taught loading of heteropolyacid may differ from that instantly claimed.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have loading of heteropolyacid at last step because the selection of any order of mixing ingredients is *prima facie* obvious. See *Ex parte Rubin* 128 USPQ 440 (Bd. App. 1959), *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946), and *In re Gibson*, 39 F.2d 975, 5 USPQ 230 (CCPA 1930). See MPEP 2144.04 [R-6] IV C.

Regarding claim 12, any difference imparted by product by process limitations would have been obvious to one having ordinary skill in the art at the time of the invention was made because where the examiner has found a substantially similar product as in the applied prior art the burden of proof is shifted to the applicant to establish that their product is patentably distinct not the examiner to show the same process of making, see *In re Brown*, 173 USPQ 685, *In re Fessmann*, 180 USPQ 324, *In re Spada*, 15 USPQ2d 1655, *In re Fitzgerald*, 205 USPQ 594 and MPEP 2113.

Response to Arguments

Applicant's arguments filed 2/9/2009 with respect to claims 1-12 and 17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PRITESH DARJI whose telephone number is (571)270-5855. The examiner can normally be reached on Monday to Thursday 8:00AM EST to 6:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/P. D./
Examiner, Art Unit 1793

/Steven Bos/
Primary Examiner, Art Unit 1793